

CALIFORNIA ENERGY COMMISSION
Utilization of Oil Production Waste Gas for Electric Generation
BreitBurn Energy Co. Project Summary

Project Description:

BreitBurn Energy Co. installed a Caterpillar G398 internal combustion engine to generate electricity from waste gas. Operating at their Brea Olinda Lease, the generators are fueled by oil field gas that previously was being flared to the atmosphere. This gas is contaminated with oxygen and nitrogen and is too small of a quantity to be economically cleaned for pipeline quality. The engines are designed to be 96% efficient for the destruction of toxic emissions - a significant improvement over flaring the gas.



Project Results:

By burning waste gas in an internal combustion engine generator, BreitBurn is able to generate an average of 324 peak kilowatts to support their facilities. The engines operate twenty-four hours per day, seven days per week. In addition to offsetting peak kilowatts from the state grid, this project also augments energy generation year round and significantly reduces emissions to the atmosphere.



Funding Details:

Project Cost	\$415,648
Total Grant Award	\$80,875
Kilowatt Generation	324

Lessons Learned:

Generation projects typically involve air quality permitting. The Air Quality Management District permitting process must be considered into the project timeline.

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